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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,775	08/06/2003	Akihiro Shimase	KAS-189	6851

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT	PAPER NUMBER
2863	

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634,775

Applicant(s)

SHIMASE ET AL.

Examiner

Michael P. Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,16-19 and 21-23 is/are allowed.
- 6) ☒ Claim(s) 1,5,6 and 15 is/are rejected.
- 7) ☒ Claim(s) 4,7-14 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The Amendment filed on February 4, 2005 has been acknowledged.

Claim Objections

1. Claim 20 is objected to because of the following informalities: lines 18 – 27, “cleaning means ... is restored” should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Gherson et al. (US 6,022,747).

Regarding claims 1 and 15, Gherson et al. discloses a sample dispensing apparatus (10) and method (Fig. 1) comprising:

- a probe (12) for sucking and ejecting a sample (Fig. 1), a dispensing syringe (38) for generating a pressure in said probe to suck and eject the sample (Fig. 1), a dispensing flow passage (passage comprises 20, 30) connecting said probe and said dispensing syringe (Fig. 1), and a control unit (14) for controlling sucking and ejection operations of the sample (Fig. 1), said apparatus further comprising:

- at least one pressure sensor (40) for detecting a pressure in said dispensing flow passage (Fig. 1);

- pressure value storing means (computer memory storing output values of 40) for time-serially storing output values of said pressure sensor (Abstract, lines 4-6, column 6, lines 2-4) during an operation of dispensing the sample (column 6, line 67 – column 7, line 3);

- storage means (computer memory for storing reference values) for storing a reference database consisted of time-serial output values of said pressure sensor (Abstract, lines 6-8), which are obtained when the sample is normally sucked or ejected by said probe (Abstract, line 7);

- determining means (42) for carrying out multi-variable analysis of both said reference database and comparison data created based on the output values of said pressure sensor time-serially stored in said pressure value storing means (column 7, lines 45-48), and for determining the presence or absence of an abnormality in the

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dispensing operation of the sample based on an analysis result (Abstract, lines 17-20, column 7, lines 48-61).

Regarding claim 5, Gherson et al. discloses that the determining means includes dispensing-function abnormality determining means for, when a fluid having a known physical property falling within a predetermined range of said physical property for samples handled by said sample dispensing apparatus, is dispensed as the sample, determining the abnormality of dispensing and determining the presence or absence of an abnormality in a dispensing function of said sample dispensing apparatus, by reference to said time-serial output values of said reference database, stored for a reference sample having the known physical property falling within said predetermined range (42 compares sample pressure integral with reference pressure integral, column 7, lines 45-61).

Regarding claim 6, Gherson et al. discloses that said sample dispensing apparatus has a function of determining the abnormality of dispensing each time said sample dispensing apparatus is started up (during aspiration cycle, Abstract, line 5), and determining the presence or absence of the abnormality in the dispensing function of said sample dispensing apparatus (Abstract, lines 17-20).

Allowable Subject Matter

3. Claims 4 and 7-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. Claim 20 would be allowable if rewritten to overcome the objection set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

5. Claims 2, 3, 16-19, and 21-23 are allowed.

Reasons For Allowance

6. The combination as claimed wherein determining means for determining an abnormality of sample dispensing by comparing the Mahalanobis distance calculated from both comparison data prepared based on the output values of said pressure sensor time-serially stored in said pressure value storing means and said reference database, with a preset threshold (claims 2, 23) or comparing a pressure value immediately before the end of the sample sucking operation with a preset threshold, and for discriminating a cause of the dispensing abnormality (claim 4) or means for discriminating the extent of deterioration in the dispensing function of said sample

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dispensing apparatus (claim 7) or after washing the interior of said dispensing flow passage including said sample probe, dispensing a fluid having a known physical property, thereby determining whether the dispensing function of said sample dispensing apparatus is restored (claim 8) or when an abnormality of dispensing is detected during suction of a sample, discarding the sample into said cleaning bath without ejecting the sample into said reaction vessel (claims 10) or when an abnormality of sample dispensing is detected, repeatedly dispensing the relevant sample within a predetermined number of times (claims 13, 14) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

7. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P Nghiem whose telephone number is (571) 272-2277. The examiner can normally be reached on M-H.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

February 11, 2005